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Remarks/Arguments

Applicant respectfully requests favorable reconsideration of the subject application, particularly in view of the above amendment and the following remarks. There is no additional fee for the amendment because the number of independent claims and the total number of claims in the application remain unchanged.

Claims 1-15 are pending in the subject application. Claims 1-3, 6, 8-11, and 13 have been rejected and Claims 4, 5, 7, 12, and 14-15 have been objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has amended the specification to identify the thermally protective shielding surrounding the fiber optical cable as element 36 and to identify the casing surrounding the shielding as element 34, which elements are clearly shown in Figs. 3 and 4.

Applicant has amended Claim 1 of the application to include in the claimed apparatus the limitation of perforation means for perforating a wellbore wall. This amendment is supported, for example, beginning at page 3, line 15 of the specification of the application which describes the apparatus as being able to penetrate a wellbore wall. Accordingly, Applicant respectfully urges that this

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amendment is fully supported by the application as originally filed and, thus, incorporates no impermissible new subject matter into the application.

Applicant has also amended Fig. 4 of the drawings by replacing element number 35, which element is not described in the specification, with element 18, which is identified as a fiber optic cable and which is shown as well, for example, in Fig. 3 of the subject application.

The disclosure has been objected to by the Examiner because numeral 36 shown in Fig. 4 of the drawings is not described in the specification. In response to this objection, Applicant has amended the specification as described herein above to provide the required description. Applicant respectfully urges that this amendment overcomes this objection.

The invention claimed by Applicant is an apparatus for perforating the wall of a wellbore for the purpose, among other things, of initiating or promoting the flow of a desired resource, such as oil, into the wellbore. The apparatus comprises perforation means for perforating a wellbore wall, which perforation means comprises a fiber optic cable having a laser input end and a laser output end. A laser source is operably connected to the laser input end and a laser head is connected to the laser output end. The laser head comprises laser control means for controlling at least one laser beam characteristic. Laser head control means for controlling the motion and

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location of the laser head is operably connected to the fiber optic cable, and a protective housing encloses the laser head. Applicant respectfully urges that the prior art relied upon by the Examiner as the basis for rejection of the subject application neither teaches nor suggests the invention claimed by Applicant.

Claims 1, 2, 6, 8 and 9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Maki et al., U.S. Patent 6,379,347 (hereinafter “the Maki et al. patent”) in view of Boebel et al., U.S. Patent 4,881,524 (hereinafter “the Boebel et al. patent”). This rejection is respectfully traversed. The Maki et al. patent teaches an apparatus that is inserted into a lumen such as a blood vessel, urethra or abdominal cavity to irradiate a tissue with an energy such as a laser ray or an ultrasonic ray that is capable of reaching deep into the tissue. The apparatus includes an irradiating unit, a transporting device and an interlocking device. The irradiating unit radiates an energy with a deep transmitting capability against the tissue. The transporting device transports the irradiating unit within a predetermined area and the interlocking device changes irradiation angle in response to the transportation of the irradiating unit. The Boebel et al. patent teaches an instrument for guiding a laser light transmitting fiber in intra-abdominal endoscopic work comprising a shaft to the distal end of which is pivoted a fiber guide for deflecting the distal end of a fiber emerging from the distal end of the shaft.

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Applicant notes that both the Maki et al. patent and the Boebel et al. patent are directed to laser devices for use in surgical procedures. Neither the Maki et al. patent nor the Boebel et al. patent teach or suggest an apparatus for completion of a wellbore comprising perforation means for perforating a wellbore wall as claimed by Applicant. Indeed, Applicant respectfully urges that the Maki et al. patent and the Boebel et al. patent constitute nonanalogous art relative to the invention claimed by Applicant.

MPEP § 2141.01(a) states that, in order to be applicable, the subject matter of nonanalogous art must be reasonably pertinent to the particular problem with which the inventor is concerned. A reference is deemed to be reasonably pertinent if, “even though it may be in a different field from that of the inventor’s endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem.” In *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) in which the applicant claimed an improvement in a hose clamp which differed from the prior art in the presence of a preassembly “hook” which maintained the preassembly condition of the clamp and disengaged automatically when the clamp was tightened, the court held that a reference which disclosed a hook and eye fastener for use in garments was not within the field of applicant’s endeavor and was not reasonably pertinent to the

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particular problem with which the inventor was concerned because it had not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments. Even though a disengageable catch is a common everyday mechanical concept, the court held that the Commissioner did not explain why a “catch” of unstated structure is such a concept, and why it would have made the claimed invention obvious. In the instant case, neither the Maki et al. patent nor the Boebel et al. patent are pertinent to the problem with which the inventor is concerned, namely perforating wellbore walls to initiate or enhance the flow of fluid into the wellbore. The environment in which the devices of the Maki et al. patent and the Boebel et al. patent are employed are substantially different from a wellbore in the ground in which Applicant’s claimed invention is employed such that one skilled in the art would not reasonably be expected or motivated to look for solutions relating to wellbore completion in the nonanalogous art of laser surgical instruments. Accordingly, Applicant respectfully urges that the Maki et al. patent and the Boebel et al. patent, alone or in combination, do not render Applicant’s claimed invention obvious in the manner required by 35 U.S.C. 103(a).

Claim 3 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Maki et al. patent in view of the Boebel et al. patent as applied to Claim 1 as

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discussed herein above, and further in view of Loeb et al., U.S. Patent Application Publication No. 2003/0199860 A1 (hereinafter “the Loeb et al. publication”). This rejection is respectfully traversed. Applicant’s arguments with respect to the Maki et al. patent and the Boebel et al. patent as set forth herein above are equally applicable to this rejection and, thus, will not be repeated except to reiterate that neither reference relates to or teaches a wellbore completion apparatus comprising perforation means for perforating the wall of a wellbore as claimed by Applicant. The Loeb et al. publication teaches a catheter device including an optical fiber having a distal end disposed within a hollow tube with a sharp or syringe shaped distal end suitable for insertion into human tissue. The Loeb et al. publication is relied upon by the Examiner as teaching the use of an outer sheathing made of a material that prevents thermal damage to the tissue from the apparatus, based upon which the Examiner argues that it would have been obvious to provide such an outer sheathing to the devices of the Maki et al. and Boebel et al. patents to prevent undesired thermal damage to the human tissue. However, as previously stated with respect to the Maki et al. patent and the Boebel et al. patent, Applicant respectfully urges that the Loeb et al. publication constitutes nonanalogous art which is not pertinent to the problem with which the inventor is concerned. As noted by the Examiner, the purpose of the outer sheathing of the device of the Loeb et al. publication is the prevention of

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undesired thermal damage to the human tissue with which the device comes in contact. In contrast thereto, as stated at page 9, lines 10-13 of the specification of the subject application, the purpose of the thermally protective shielding of the apparatus of the invention claimed by Applicant is the protection of the fiber optic cable against the high temperatures encountered in a wellbore, which need is neither taught nor suggested by the Loeb et al. publication. Accordingly, Applicant respectfully urges that the Maki et al. patent, the Boebel et al. patent and the Loeb et al. publication, alone or in combination, do not render Applicant's claimed invention obvious in the manner required by 35 U.S.C. 103(a).

Claims 10 and 11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Maki et al. patent in view of the Boebel et al. patent as applied to Claim 1 as discussed herein above, and further in view of Neuberger, U.S. Patent Application Publication No. 2003/01239735 (hereinafter "the Neuberger publication"). This rejection is respectfully traversed. Applicant's arguments with respect to the Maki et al. patent and the Boebel et al. patent as set forth herein above are equally applicable to this rejection and, thus, will not be repeated except to reiterate that neither reference relates to or teaches a wellbore completion apparatus comprising perforation means for perforating the wall of a wellbore as claimed by Applicant. The Neuberger publication teaches a system and method for treatment of

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oral tissues using 980 nm laser radiation and a handpiece with means for concurrently delivering the laser radiation and a liquid/gas spray onto the treatment area to improve the treatment effects. As with the Maki et al. and Boebel et al. patents, Applicant respectfully urges that the Neuberger publication is also nonanalogous art relative to the invention claimed by Applicant. The Neuberger publication is relied upon by the Examiner as teaching a plurality of nozzles disposed around an optical fiber to supply a fluid, based upon which the Examiner argues that it would have been obvious to adapt the device of the Maki et al. patent in view of the Boebel et al. patent to provide a more effective removal of debris. Applicant respectfully urges that, because none of the Maki et al. patent, the Boebel et al. patent and the Neuberger publication teach or suggest a wellbore completion apparatus comprising perforation means for perforating the wall of a wellbore as claimed by Applicant, the combination of the teachings of the Maki et al. patent, the Boebel et al. patent and the Neuberger publication would not result in the invention claimed by Applicant. Accordingly, Applicant respectfully urges that the Maki et al. patent, the Boebel et al. patent and the Neuberger publication, alone or in combination, do not render Applicant's claimed invention obvious in the manner required by 35 U.S.C. 103(a).

Claim 13 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Maki et al. patent in view of the Boebel et al. patent as applied

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to Claim 1 as discussed herein above, and further in view of Ellis et al., U.S. Patent 6,491,689 B1 (hereinafter “the Ellis et al. patent”). This rejection is respectfully traversed. Applicant’s arguments with respect to the Maki et al. patent and the Boebel et al. patent are equally applicable to this rejection and, thus, will not be repeated. The Ellis et al. patent teaches a method and apparatus for creating a series of percutaneous myocardial revascularization channels in the heart. The Ellis et al. patent is relied upon by the Examiner as teaching a catheter having a plurality of flexible protective couplings, based upon which the Examiner argues that it would have been obvious to provide such flexible couplings to the device of the Maki et al. and Boebel et al. patents to protect the optical fiber. Applicant respectfully disagrees with the Examiner’s characterization of the teachings of the Ellis et al. patent. The Examiner cites elements 184 and 186, shown in Fig. 11 of the Ellis et al. patent, as constituting couplings as claimed by Applicant. However, Col. 10, lines 57-65 describe element 184 as being an intermediate tube which is slidably disposed within an outer tube 186. Applicant respectfully urges that the Ellis et al. patent neither teaches nor suggests a device having a plurality of protective couplings as claimed by Applicant. Notwithstanding, even if it did, Applicant respectfully urges that, as is the case with the Maki et al. patent and the Boebel et al. patent, the Ellis et al. patent is nonanalogous art which one skilled in the art would not reasonably be expected or

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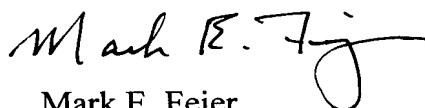
motivated to address the problem of concern to the inventor. Accordingly, Applicant respectfully urges that the Maki et al. patent, the Boebel et al. patent and the Ellis et al. patent, alone or in combination, do not render Applicant's claimed invention obvious in the manner required by 35 U.S.C. 103(a).

Conclusion

Applicant intends to be fully responsive to the outstanding Office Action. If the Examiner detects any issue which the Examiner believes Applicant has not addressed in this response, Applicant urges the Examiner to contact the undersigned.

Applicant sincerely believes that this patent application is now in condition for allowance and, thus, respectfully requests early allowance.

Respectfully submitted,



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Amendments to the Drawings

The attached sheet of drawings includes changes to Fig. 4. This sheet, which includes Figs. 3-4, replaces the original sheet including Figs. 3-4. In Fig. 4, the previous element number 35 has been renumbered as element 18.

Attachments: Replacement Sheet
 Annotated Sheet Showing Changes



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Amendment dated 03 November 2004
Reply to Office Action of 23 August 2004
Annotated Sheet Showing Changes

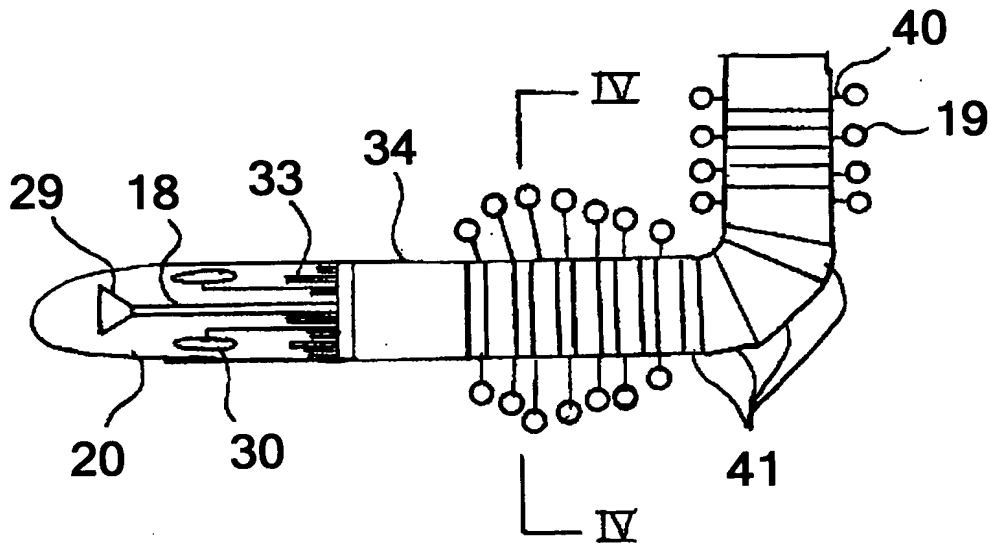


Fig. 3

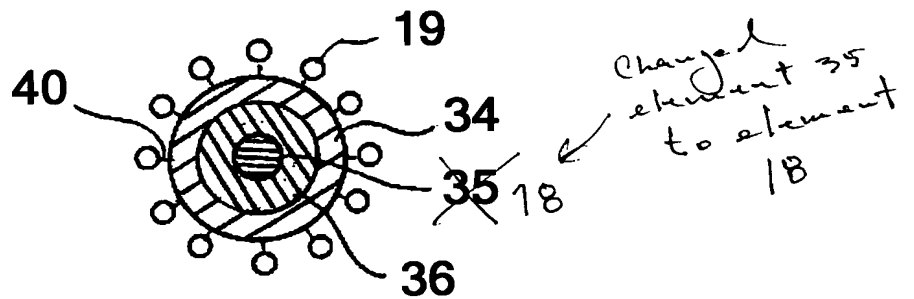


Fig. 4